

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CELLULAR COMMUNICATIONS
EQUIPMENT LLC,

Plaintiff,

v.

HTC CORPORATION, *et al.*,

Defendants.

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CASE NO. 6:13-cv-507-LED

CONSOLIDATED LEAD CASE

**DEFENDANTS' MOTION FOR SUMMARY
JUDGMENT OF INVALIDITY FOR INDEFINITENESS**

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II. INTRODUCTION

Pursuant to Fed. R. Civ. P. 56 and the Court’s Order granting leave (Dkt. No. 286), Defendants¹ file this motion for summary judgment of invalidity based on indefiniteness of Claim 11 of U.S. Patent No. 6,819,923 (“9923 Patent”); Claim 11 of U.S. Patent No. 6,810,019 (“019 Patent”); Claims 1, 9, and 18 of U.S. Patent No. 7,941,174 (“174 Patent”); and Claims 1, 12, and 24 of U.S. Patent No. 8,055,820 (“820 Patent”), along with their respective dependent claims.

The challenged claims are indefinite because they fail to “inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014); 35 U.S.C. § 112, ¶ 2 (pre-America Invents Act). *Nautilus* emphasized that Section 112 requires patent claims have the precision necessary “to afford clear notice of what is claimed, thereby ‘apprising the public of what is still open to them.’” *Id.* at 2128–29 (citation omitted). A court’s ability to “ascribe some meaning” to the claims does not suffice. *Id.* at 2130. Rather, the public-notice function is only satisfied when “a skilled artisan at the time of the patent application, not that of a court viewing matters post hoc,” can read a claim and understand the technology he or she can practice without risking an infringement claim. *Id.* Anything less “would diminish the definiteness requirement[] . . . and foster the innovation-discouraging ‘zone of uncertainty.’” *Id.*

As the challenged claims fail to meet these requirements, Defendants request that the Court find these claims indefinite and therefore invalid.

¹ This motion is filed on behalf of AT&T Mobility LLC, HTC Corporation, HTC America, Inc., Exedeia, Inc., NEC Casio Mobile Communications, Ltd., NEC Corporation of America, Inc., Sprint Solutions, Inc., Sprint Spectrum L.P., Boost Mobile, LLC, Dell Inc., T-Mobile USA, Inc., T-Mobile US, Inc., Pantech Co., Ltd., Pantech Wireless, Inc., LG Electronics, Inc., LG Electronics USA, Inc., Amazon.com, Inc., Microsoft Corporation, Cellco Partnership d/b/a Verizon Wireless, ZTE USA, Inc., and Apple Inc., (collectively, “Defendants”). Each Defendant moves for summary judgment only with respect to the challenged claims asserted against that Defendant. Due to the Court’s page limits, Defendants have focused this motion on the claims that are most clearly invalid under § 112, ¶¶ 2, 6. Defendants reserve the right to raise additional indefiniteness arguments identified in their Invalidity Contentions when appropriate, such as in subsequent claim construction proceedings.

III. STATEMENT OF ISSUES

1. Whether Claims 11–13 of the '019 Patent are invalid for indefiniteness because they recite (or depend on a claim that recites) a “processing means for arranging gaps in a time-slot frame according to the measurement pattern definitions,” for which no sufficient corresponding structure is described in the specification.

2. Whether Claims 11–13 of the '019 Patent are invalid for indefiniteness because they recite (or depend on a claim that recites) a “processing means...arranged to set...a delay according to the measurement pattern definitions,” for which no sufficient corresponding structure is described in the specification.

3. Whether Claims 11 and 13 of the '9923 Patent are invalid for indefiniteness because they recite (or depend on a claim that recites) a “means for associating” for which no sufficient corresponding structure is described in the specification.

4. Whether Claims 11 and 13 of the '9923 Patent are invalid for indefiniteness because they recite (or depend on another claim that recites) a “means for receiving” for which no sufficient corresponding structure is described in the specification.

5. Whether Claims 1, 6, 9, 14, 18, and 19 of the '174 Patent are indefinite because they do not inform (or depend on a claim that does not inform) persons of ordinary skill, with reasonable certainty, how to apply the prepositional phrase “at a start of a message transmission using a first one of the codes.”

6. Whether Claims 1, 4, 6–12, 15, 17–22, and 24 of the '820 Patent are invalid for indefiniteness because they do not inform (or they depend on a claim that does not inform) persons of ordinary skill, with reasonable certainty, how to reconcile inconsistent and directly conflicting claim requirements.

7. Whether Claims 12, 15, and 17–22 of the '820 Patent are invalid for indefiniteness because they recite (or depend on a claim that recites) a “designating means,” for which no sufficient corresponding structure is described in the specification.

IV. STATEMENT OF UNDISPUTED MATERIAL FACTS

The following materials facts are undisputed:

The '019 Patent

1. Claim 11 of the '019 Patent recites a “processing means for arranging gaps in a time-slot frame according to the measurement pattern definitions.” (Ex. 6 at 12:19–20.)

2. Claim 11 of the '019 Patent recites that “the processing means are also arranged to set for the measurement pattern definition a delay according to the measurement pattern definitions.” (*Id.* at 12:22–24.)

3. Claims 12 and 13 of the '019 Patent depend upon Claim 11. (*Id.* at 12:25–35.)

4. The “processing means” element of Claim 11 of the '019 Patent is a “means-plus-function” element governed by 35 U.S.C. § 112, ¶ 6. (Ex. 2, Joint Statement at Ex. A, p. 2.)

The '9923 Patent

5. Claim 11 of the '9923 Patent recites a “means for receiving a neighbor cell information message.” (Ex. 3 at 9:8.)

6. Claim 11 of the '9923 Patent recites a “means for associating a specific value of said set of specific parameter values indicated by one of said index with the corresponding second parameter of a neighbor cell.” (*Id.* at 9:19–22.)

7. Claim 13 of the '9923 Patent depends upon Claim 11. (*Id.* at 9:25–27.)

8. The “means for receiving a neighbor cell information message” element of Claim 11 of the '9923 Patent is a “means-plus function element” governed by 35 U.S.C. § 112, ¶ 6. (Ex. 2, Joint Statement at Ex. A, p. 1.)

9. The “means for associating a specific value of said set of specific parameter values indicated by one of said index with the corresponding second parameter of a neighbor cell” element of Claim 11 of the '9923 Patent is a “means-plus function element” governed by 35 U.S.C. § 112, ¶ 6. (*Id.*, Joint Statement at Ex. A, p. 2.)

The '174 Patent

10. Claims 1, 9, and 18 of the '174 Patent each recite the prepositional phrase “at a start of a message transmission using a first one of the codes.” (Ex. 2 at 9:63–64, 10:39–40, 12:9–10.)

11. Claim 6 of the '174 Patent depends upon Claim 1. (*Id.* at 10:21–23.)

12. Claim 14 of the '174 Patent depends upon Claim 9. (*Id.* at 10:61–63.)

13. Claim 19 of the '174 Patent depends upon Claim 18. (*Id.* at 12:11–13.)

The '820 Patent

14. Claims 1, 12, and 24 of the '820 Patent each designate a buffer status reporting format “depending on the pre-selected condition detected” and “when there is sufficient uplink bandwidth.” (Ex. 5 at 11:13–14, 11:18–19, 11:66–67, 12:4–5, 14:1–2, 14:6–7.)

15. Claim 12 of the '820 Patent recites that “the designating unit is configured to designate the long buffer status reporting format” (*Id.* at 12:3–4.)

16. Claims 4, 6, 7, 8, 9, 10, and 11 of the '820 Patent depend upon Claim 1. (*Id.* at 11:27–31, 11:36–55.)

17. Claims 15, 17, 18, 19, 20, 21, and 22 of the '820 Patent depend upon Claim 12. (*Id.* at 12:15–19, 12:26–48.)

V. ARGUMENT

Summary judgment is proper when “there is no genuine issue as to any material fact” and “the moving party is entitled to a judgment as a matter of law.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). Whether “means-plus-function” claims are indefinite is a question of law. *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005).

A. The '019 Patent: Claim 11 is indefinite because the “processing means” limitations lack the corresponding structure that 35 U.S.C. § 112, ¶ 6 requires.

Claim 11 of the '019 Patent recites a “processing means for arranging gaps in a time-slot frame according to the measurement pattern definitions” (Ex. 6 at 12:19–20) and “the processing means are also arranged to set for the measurement pattern definition a delay according to the

measurement pattern definitions.” (*Id.* at 12:22–24.) The parties agree that both terms are governed by § 112, ¶ 6.

The scope of a claim element under § 112, ¶ 6 is limited to the corresponding structure described in the specification that is “clearly link[ed]” to and necessary for performing the recited function. *See Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). Computer-implemented means-plus-function limitations, moreover, “must disclose an algorithm for performing the claimed-function,” in order to meet the definiteness requirements of 35 U.S.C. § 112, ¶ 2. *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1337 (Fed. Cir. 2014) (quoting *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008)). Thus, a quid pro quo exists that permits a patentee to claim generic means elements in purely functional terms provided that the specification describes the requisite corresponding structure for performing that function. *See Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1219 (Fed. Cir. 2003). Where a patent does not describe requisite structure that is clearly linked to performing the recited function, the claim fails for indefiniteness under 35 U.S.C. § 112, ¶ 2. *See Default Proof*, 412 F.3d at 1298.

The specification of the ’019 Patent fails to disclose the requisite structure that must be clearly linked to and necessary for performing the recited functions. The specification discloses a general purpose microprocessor, but does not identify any specific algorithm for performing the claimed functions. Where the claimed function is performed by a general purpose computer or microprocessor, the specification must disclose not only the existence of the computer or microprocessor, but also the specific algorithm that when executed transforms the general purpose computer or microprocessor into a special purpose computer able to perform the claimed function. *Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1338 (Fed. Cir. 2008). If the specification fails to precisely define each step of the algorithm, then the claim is invalid. *See WMS Gaming Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1348 (Fed. Cir. 1999); *see also Default Proof*, 412 F.3d at 1298.

1. The specification links the “processing means for arranging gaps in a time-slot frame according to the measurement pattern definitions” to software executed by a generic microprocessor, without disclosing the required software or algorithm.

CCE maintains that the corresponding structure for the “processing means” element includes the specification’s generic “processor, controller, or application specific integrated circuit.” (See Dkt. No. 277 at 14.) To comply with § 112, ¶ 6, however, the specification must disclose an algorithm to transform the general purpose processor, controller or circuit into a special purpose computer able to perform the claimed function. *Aristocrat*, 521 F.3d at 1338. CCE has not identified any such algorithm. (See Ex. 1 at ¶¶ 63–77.) CCE resorts to recasting the specification’s description of certain parameters and pattern definitions as an algorithm. CCE concedes that transmission gaps are “typically defined by the TGL, TGPL, TGD, and TGPRC parameters,” but claims that Figure 3 shows “how these TGL, TGPL, TGD, and TGPRC are *used* to define transmission gaps.” (Dkt. No. 277 at 15 (emphasis added).) Yet, Figure 3 shows gaps that were *already arranged*; “*how*” these gaps were arranged in practice is missing. (Ex. 6 at Fig. 3.) The same is true for the remaining figures and disclosure CCE identifies, none of which describes *how* the processor is programmed to arrange the gaps in a time-slot frame, using the disclosed parameters.

The disclosure of various parameters that may be *used* by an algorithm does not satisfy the requirement to disclose the actual algorithm specifying *how* to carry out the claimed function. See, e.g., *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1338 (Fed. Cir. 2014) (“[The specification] discloses inputs to and outputs from the code assembler instructions, but does not include any algorithm for how the second code module is actually assembled.”); *Ibormeith IP, LLC v. Mercedes-Benz USA, LLC*, 732 F.3d 1376, 1382 (Fed. Cir. 2013) (table of “inputs without specifying any single formula or function or algorithm defining the contribution of any of the inputs to a computation” was not sufficient structure). Providing a series of parameters to be *used* does not disclose the requisite algorithm because the parameters fail to disclose the steps of the algorithm, let alone *how* the algorithm uses the parameters. *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1337 (Fed. Cir. 2014) (“[The specification] must disclose *some* algorithm; it cannot

merely restate the function recited in the claim.” (emphasis in original)). Thus, CCE’s reliance on the disclosure of parameters to be *used* in some undisclosed manner is misplaced, as mere parameters do not provide the requisite structure—in the form of an algorithm—that § 112, ¶ 6 requires. (See Ex. 1 at ¶¶ 76–77.)

CCE makes the bare conclusion that “a person skilled in the art would understand that a processor would ‘arrang[e] gaps in a time-slot frame according to the measurement pattern definitions by *applying* [*i.e., using*] the TGL, TGD, TGPL, and/or TGPRC parameters.’” (Dkt. No. 277 at 15–16 (emphasis added).) First, CCE applies the wrong legal standard. The viewpoint of a person of ordinary skill in the art is only relevant where some algorithm is disclosed. *Aristocrat*, 521 F.3d at 1337 (“consideration of the understanding of one skilled in the art in no way relieves the patentee of adequately disclosing sufficient structure in the specification”); *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1302 (Fed. Cir. 2005) (“the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.”). In this case, *no* algorithm is disclosed—only parameters to be used in the undisclosed algorithm and testimony from one skilled in the art cannot fill-in the gaps in the disclosure. (See Ex. 1 at ¶¶ 65–78.) The Federal Circuit has consistently held that it is insufficient to rely on the ability of a person of ordinary skill in the art to derive the requisite structure in the form of an algorithm as a substitute for the required detailed disclosure of the algorithm in the specification. *Blackboard, Inc. v. Desire2Learn Inc.*, 574 F.3d 1371, 1385 (Fed. Cir. 2009) (“That ordinarily skilled artisans *could* carry out the recited function in a variety of ways is precisely why claims written in ‘means-plus-function’ form *must disclose the particular structure* that is used to perform the recited function . . . [to avoid any attempt] to capture *any possible means for achieving that end.*”) (emphasis added); see also *Triton Tech of Tex., LLC v. Nintendo of Am., Inc.*, 753 F.3d 1375, 1379 (Fed. Cir. 2014); *Eplus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 519 (Fed. Cir. 2012); *Noah*, 675 F.3d at 1317.

Second, by contending that the structure corresponding to the processing means is fully disclosed by way of measurement pattern parameters, CCE reads out the processing means

element, and, instead, claims the measurement pattern itself. *Merck & Co. v. Teva Pharms. U.S.A.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (construction should not render claim requirements superfluous). The specification concedes, however, that measurement patterns and the particular parameters used in the alleged invention already existed in the prior art. (Ex. 6 at Figs. 4A, B (depicting prior art measurement patterns), 7:31–35 (describing measurement parameters used in prior art), 7:6–9 (stating that the CFN and TGSN parameters existed, but were not typically used, in defining measurements).)

Third, even assuming that CCE’s identification of various parameters could qualify as *some portion* of an algorithm that one of ordinary skill in the art may be able to use to derive a complete algorithm (which it cannot), the claim is still invalid as indefinite. This is because the law requires that the specification itself disclose a *specific algorithm*—rather than bread crumbs a skilled artisan may use to complete the algorithm. *Aristocrat*, 521 F.3d at 1334–35.

The specification fails to disclose any algorithm that might use the parameters to perform the claimed function of “arranging gaps in a time-slot frame according to the measurement pattern definitions.” (See Ex. 1 at ¶¶ 65–78.) Instead, the specification merely states that “the invention is preferably implemented by software” without providing any details about that software. (Ex. 6 at 10:43.) This is insufficient as a matter of law to transform the disclosed general purpose microprocessor into a special purpose computer capable of performing the claimed function. See *Noah* 675 F.3d at 1312 (“Simply disclosing software, however, ‘without providing some detail about the means to accomplish the function[,] is not enough.’”). Claim 11 is indefinite and thus invalid.

2. The specification links the “processing means are also arranged to set for the measurement pattern definition a delay according to the measurement pattern definitions” to software executed by a generic processor, without disclosing the required software or algorithm.

Like the “processing means for arranging gaps” element discussed above, CCE maintains that the corresponding structure for the “processing means ... arranged to set ... a delay” element includes the specification’s generic “processor, controller, or application specific integrated

circuit.” (Dkt. No. 277 at 17.) The disclosure of a generic processor, controller, or application specific integrated circuit is insufficient to satisfy the requirements of § 112, ¶ 6, however, because the corresponding structure must include an algorithm that runs on the identified generic computer hardware to achieve the recited function. No such algorithm is disclosed. (See Ex. 1 at ¶¶ 43–47.)

CCE fails to identify any such algorithm. (See Ex. 1 at ¶¶ 47–58.) Instead, CCE concludes that “a skilled artisan would understand that the algorithm disclosed for ‘set[ting] for the measurement pattern a delay according to the measurement pattern definition’ is *application* [i.e., *usage*] of a CFN and TGSN parameter combination specific to the terminal.” (Dkt. No. 277 at 19 (emphasis added).) First, an undisclosed application or usage of parameters is not an algorithm. (See Ex. 1 at ¶¶ 57–58.) Second, as discussed above, the inquiry is not whether a person of ordinary skill in the art could derive his or her own algorithm to apply the parameters, but rather, whether the specification itself discloses an algorithm for performing the claimed function. See *Noah*, 675 F.3d at 1312. Third, by attempting to claim the result of a function—an arrangement of gaps *using* CFN and TGSN parameters—rather than disclosing a specific *way* in which the CFN and TGSN parameter combinations are applied, CCE impermissibly seeks to claim any possible algorithm a skilled artisan could come up with to achieve the result. (See Ex. 1 at ¶ 58.) See *Function Media LLC v. Google Inc.*, 708 F.3d 1310, 1319 (Fed. Cir. 2013).

Here, the specification does not disclose the requisite algorithm. (See Ex. 1 at ¶¶ 43–59.) Instead, it states that “the invention is preferably implemented by software.” (Ex. 6 at 10:43.) This disclosure is legally insufficient to transform the disclosed generic hardware into a special purpose computer capable of performing the claimed function. See *Noah*, 675 F.3d at 1312. Thus, Claim 11 is also indefinite and thus invalid.

B. The ’9923 Patent: Claim 11 is indefinite because the means-plus-function elements lack the structure that 35 U.S.C. § 112, ¶ 6 requires.

Claim 11 recites a “means for receiving a neighbor cell information message” and a “means for associating a specific value of said set of specific parameter values indicated by one of said index with the corresponding second parameter of a neighbor cell.” (Ex. 3 at 9:8, 9:18–20.)

The specification, however, fails to disclose any structure in the form of an algorithm that is clearly linked to and necessary for performing either of the recited “receiving” and “associating” functions. (See Ex. 1 at ¶¶ 156–70, 175–90.); *see also Mobile Telecomms. Techs., LLC v. Amazon.com, Inc.*, Case No. 2:13-cv-00883-JRG-RSP, Dkt. No. 79 at 40 (means-plus-function claim indefinite where the plaintiff’s proffered algorithm was “merely a restatement of the claimed function . . . and provide[d] no algorithm let alone any algorithm that is ‘clearly link[ed] to the claimed function.’”). Claim 11 is therefore indefinite and thus invalid.

1. The specification links the “means for receiving” to a general purpose “microprocessor” executing “software programs,” without disclosing the required software functionality or algorithm.

“A structure disclosed in the specification qualifies as a ‘corresponding structure’ if the specification or the prosecution history ‘clearly links or associates that structure to the function recited in the claim.’” *See Noah*, 675 F.3d at 1311. The specification “clearly links” the claimed function—“receiving a neighbor cell information message”—to “means 410” as shown in Figure 7. (Ex. 3 at 6:41–43 (“According to the invention, a mobile communication means 10 further comprises at least a) means 410 *for receiving a neighbor cell information message*” (emphasis added)); *see also* Ex. 1 at ¶¶ 175, 186–87.)

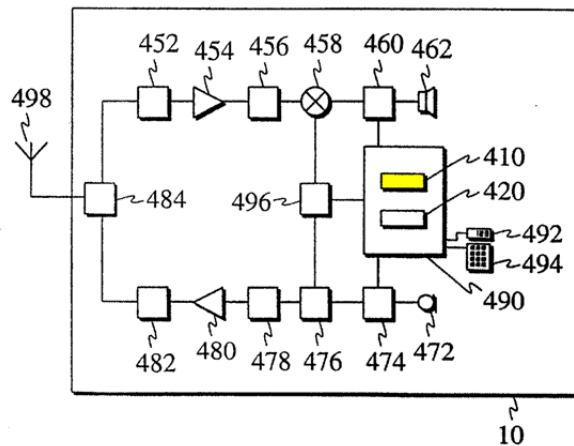


Fig. 7

The specification goes on to explain that “means 410” constitutes “software programs . . . being executed by a microprocessor.” (Ex. 3 at 6:57–60.) But disclosing that means 410 constitutes a generic software program “without providing some detail about the means to

accomplish the function, is not enough.” See *Noah*, 675 F.3d at 1312. The specification provides no detail regarding this generic software or its underlying algorithm. (Ex. 1 at ¶¶ 174–87, 190.)

CCE asserts that the corresponding structure is “an antenna, a receiver, and a microprocessor . . . and equivalents thereof (no special algorithm required).” (Dkt. No. 277 at 5.) Although these components may generally receive signals, the claimed function is *not* merely “receiving,” but “receiving *a neighbor cell information message*.” (See Ex. 1 at ¶¶ 186–87.) The specification does not link CCE’s proposed structure of “an antenna, a receiver, and a microprocessor” to the claimed function. (See Ex. 3 at 6:16–39.)

According to the specification, the receiver of CCE’s alleged corresponding structure filters, amplifies, converts, demodulates, and decodes the received *signal*—it has no disclosed involvement with the *neighbor cell information message*. (See *Id.* at 6:19–27; Ex. 1 at ¶ 181.) The antenna of CCE’s alleged corresponding structure is not associated with any function at all. (See Ex. 3 at 6:33–34 (“The mobile communication means further comprises an antenna 498 . . .” with no disclosed functionality.); Ex. 1 at ¶ 183.) And the specification merely states that the microprocessor of CCE’s alleged corresponding structure executes programs—not that it receives a *neighbor cell information message*. (See Ex. 3 at 6:5–8 (“the programs being executed by a microprocessor of the control unit”), 6:57–61 (“the programs being executed by a microprocessor of the control block 490”).)

In FIG. 7, a block diagram of a mobile station 10, or generally a mobile communication means 10 according to a further advantageous embodiment of the invention is shown. The receiver part of the mobile communication means comprises a first receiver filter 452 for filtering the received signal, a receiver amplifier 454 for amplifying the received signal, a second receiver filter bank 456 for further filtering of the received signal, a mixer 458 for converting the received signal to baseband, a receiver block 460 for demodulating and decoding the signal and an earpiece 462 or a loudspeaker 462 for producing the audible received signal. The transmitter part comprises a microphone 472, a transmitter block 474 for coding the signal to be transmitted and performing other necessary signal processing, a modulator 476 for producing the modulated radio frequency signal, a first transmitter filter 478, a transmitter amplifier 480, and a second transmitter filter 482. The mobile communication means further comprises an antenna 498, an oscillator block 496, a control block 490, a display 492 and a keypad 494. The control block 490 controls the functioning of the receiver and transmitter blocks and the oscillator block, as well as displays information to the user via the display 492 and receives commands from the user via the keypad 494.

According to the invention, a mobile communication means 10 further comprises at least

- a) means 410 for receiving a neighbor cell information message comprising a set of parameter values, and for each cell of a plurality of neighbor cells, cell information comprising at least one parameter value for a first parameter, and for at least one second parameter, one second value indicating which value of said set of parameter values is used for said second parameter,
- b) means 420 for associating a value of said set of parameter values indicated by one of said second values with the corresponding parameter of a neighbor cell.

Said first parameter can be for example the base station identity code BSIC.

Preferably the means 410 and 420 are realized using software programs stored in a memory element of a control block 490 of the mobile communication means 10, the programs being executed by a microprocessor of the control block 490.

Ex. 3 at 6:16–61

Further, the antenna and receiver are distinct from the “means 410 for receiving a

neighbor cell information message.” (Compare *id.* 6:19–27 (describing the receiver), and 6:33–34 (describing the antenna), with 6:40–61 (describing “means 410 for receiving a neighbor cell information message” and “realized using software programs ... being executed by a microprocessor”).) Only means 410 is linked to the claimed function, where means 410 is “realized [by] using [non-disclosed] software programs.” (*Id.* 6:57–61; Ex. 1 at ¶¶ 186–87.)

CCE’s argument that the structure is also a general microprocessor (without a special algorithm) fails for the same reason. The specification expressly links “means 410 ***for receiving a neighbor cell information message***” to “software programs” executed by a general purpose microprocessor. (Ex. 3 at 6:56–61 (means 410 “are realized using software programs ..., the programs being executed by a microprocessor”).) Thus, the structure is not the generic microprocessor, but the software programs executed by it. The specification, however, fails to describe any details about these software programs and discloses no algorithm to perform the claimed function. (See Ex. 1 at ¶¶ 174–90.) Accordingly, Claim 11 is indefinite and thus invalid. See *Aristocrat Techs*, 521 F.3d at 1338.

The claims here are distinguishable from those in *Katz*. See *In re Katz Call Processing Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (requiring algorithms be disclosed for “specific functions that would need to be implemented by programming a general purpose computer”). Claim 11 is closer to the claim in *Function Media*, where the Federal Circuit held that “means for transmitting said presentations to a selected media venue of the media venues” required disclosure of a corresponding algorithm. 708 F.3d at 1317-18. *In re Katz* is inapplicable to the claims here.

2. The specification links the “means for associating” to “software programs” executed by a general purpose “microprocessor,” without disclosing the required software or algorithm.

With respect to the “means for associating,” the specification “clearly links” the claimed function—“associating a specific value of said set of specific parameter values indicated by one of said index with the corresponding second parameter of a neighbor cell”—to “means 420” shown in Figure 7. (Ex. 3 at 6:41–42, 6:51–54, 9:19–21; see also Ex. 1 at ¶ 156.) The specification then describes “means 420” as “realized using software programs stored in a memory element of a

control block 490 . . . , the programs being executed by a microprocessor of the control block 490.” (Ex. 3 at 6:57–61.) Despite linking the claimed function to “software programs . . . being executed by a microprocessor,” the specification fails to disclose any algorithm that describes *how* the software performs that function. (Ex. 3 at 6:41–61; *see also* Ex. 1 at ¶¶ 156–70.)

CCE attempts to find an algorithm in the data tables illustrated in Figures 2–5, but these figures simply show the content of the “neighbor cell information message” that is used by the “means for associating.” (*See* Ex. 1 at ¶¶ 155–69.) Neither these figures nor the specification disclose how a general purpose computer uses, accesses, or associates the data *within* the message. (*Id.*) The mere disclosure of an input, *i.e.*, the “neighbor cell information message,” is insufficient to transform the general purpose microprocessor into a special purpose computer capable of performing the claimed function. (*Id.*); *see also Ibormeith*, 732 F.3d at 1382 (finding that table of inputs “without specifying any single formula or function or algorithm defining the contribution of any of the inputs” failed to sufficiently disclose an algorithm).

CCE concedes that the disclosed general purpose microprocessor could not accomplish the claimed function without being programmed with a specific algorithm to perform that function. (Dkt. No. 277 at 8, 10.) CCE’s expert similarly concludes that a person of ordinary skill in the art “would understand these passages [referring to Ex. 3 at 6:41–61] to disclose a microprocessor for performing the ‘associating’ function recited in claim 11.” (Dkt. No. 277-1 at ¶ 86.)

CCE’s interpretation reads any required structure out of the claim and renders the “means for associating” and “index for a second parameter” limitations redundant. CCE insists, however, that “the algorithm disclosed for performing this function is simple: using the parameter value specified by the index for the second parameter.” (Dkt. No. 277 at 10.) In other words, CCE argues that the algorithm is just the claimed function itself—associating a specific parameter value indicated by the index with the second parameter is exactly the same as merely using in some undisclosed way the parameter value specified by the index for the second parameter. (Dkt. No. 277-1 at ¶ 88.) But as discussed above, the specification “must disclose *some* algorithm; it cannot merely restate the function recited in the claim.” *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d

1326, 1337 (Fed. Cir. 2014) (emphasis in original). Furthermore, in arguing that “the index ... is a data structure that, by definition, associates a specific value with a second parameter” (Dkt. No. 277 at 10), CCE improperly argues that two different limitations require using the same structure to accomplish the same result. *See Merck*, 395 F.3d at 1372. Under CCE’s interpretation, both the “means for associating” limitation and “index for a second parameter” limitation require using an index to associate a specific value with a parameter.

In an attempt to explain the absence of the required algorithm, CCE relies on its expert, who asserts that “[t]his algorithm is apparent from the claim language, which recites ‘an index for a second parameter, said index indicating which value of said set of specific parameter values is used for said second parameter.’” (Dkt. No. 277-1 at ¶ 88.) First, an index is not an algorithm, and “using” a value does not specify the algorithm of *how* the value is used. (*See Ex. 1* at ¶¶ 166–69.) Indeed, a person of ordinary skill in the art would recognize that an index can be implemented in a number of different ways, and therefore “index” does not limit the claim to any particular structure. (*See Ex. 1* at ¶ 166.) Second, as with its similar argument with respect to the ’019 Patent, CCE attempts to claim the index values themselves rather than any means for associating the index values to parameters, thus impermissibly reading out the claimed means elements and expanding the scope of the claimed invention. (*See Ex. 1* at ¶¶ 164–169); *see also Merck*, 295 F.3d at 1372.

CCE cannot manufacture an algorithm through an expert’s testimony, especially when the expert relies solely on the claim language itself. *See Noah*, 675 F.3d at 1312 (“The prohibition against using expert testimony in this manner is a direct consequence of the requirement that the specification itself adequately disclose the corresponding structure.”). The proper inquiry focuses on whether the specification actually discloses an algorithm, not whether a person of ordinary skill in the art might have been able to devise one. *See Function Media v. Google*, 708 F.3d 1310, 1319 (Fed. Cir. 2013); *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 953 (Fed. Cir. 2007).

CCE’s cites to the specification do not change the result. (*See Ex. 1* at ¶¶ 155–67.) At best, these passages illustrate the neighbor cell information message’s content, which is an input for the

undisclosed algorithm, not an algorithm itself. (*See* Ex. 1 at ¶¶ 163, 167–69; Dkt. No. 277 at 10 (citing Ex. 3 at 2:15–23, 3:8–22, 5:6–17, each of which discloses contents of a neighbor cell information message, namely index or pointer parameters).)

With a general purpose microprocessor, the claimed associating function could potentially be performed in any number of ways—generically claiming a means in purely functional terms does not give CCE a monopoly to them all. *See Noah*, 675 F.3d at 1318. For the reasons discussed above, Claim 11 indefinite and thus invalid. *See Iborneith*, 732 F.3d at 1381 (disclosure of inputs failed to adequately disclose an algorithm corresponding to a “computational means”).

C. The '174 Patent: Claims 1, 9, and 18 are indefinite because they do not inform persons of ordinary skill, with reasonable certainty, how to apply the prepositional phrase “at a start of a message transmission using a first one of the codes.”

Claims 1, 9, and 18 of the '174 Patent are invalid as indefinite under 35 U.S.C. § 112, ¶ 2 because a person of ordinary skill in the art is not informed, with reasonable certainty, whether the prepositional phrase “at a start of a message transmission using a first one of the codes” modifies (1) “a total transmit power of the subscriber station for the codes,” (2) “a transmit power difference which is to be maintained,” or (3) “determining a transmit power difference.” 35 U.S.C. § 112, ¶ 2 “require[s] that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

Claim 1 includes the following limitation:

determining a transmit power difference which is to be maintained by the subscriber station between on one hand a total maximum transmit power of the subscriber station for the codes and on another hand a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes.

The prepositional phrase “at a start of a message transmission” must modify one of the noun or verb objects in the limitation. However, the plain language of Claim 1 allows the prepositional phrase to modify one or more of three possibilities: (1) the “total transmit power of the subscriber station for the codes” noun phrase, (2) the “maintain[ing] a transmit power

difference]” verb phrase, and/or (3) the “determining a transmit power difference” verb phrase. It is unclear which of these the claim covers, and it is not possible for the claim to cover all of them.

1. The “total transmit power of the subscriber station for the codes” noun phrase could be limited to “at a start of a message transmission.”

The prepositional phrase “at a start of a message transmission” could modify the “total transmit power of the subscriber station for the codes” noun phrase. This interpretation is illustrated below.

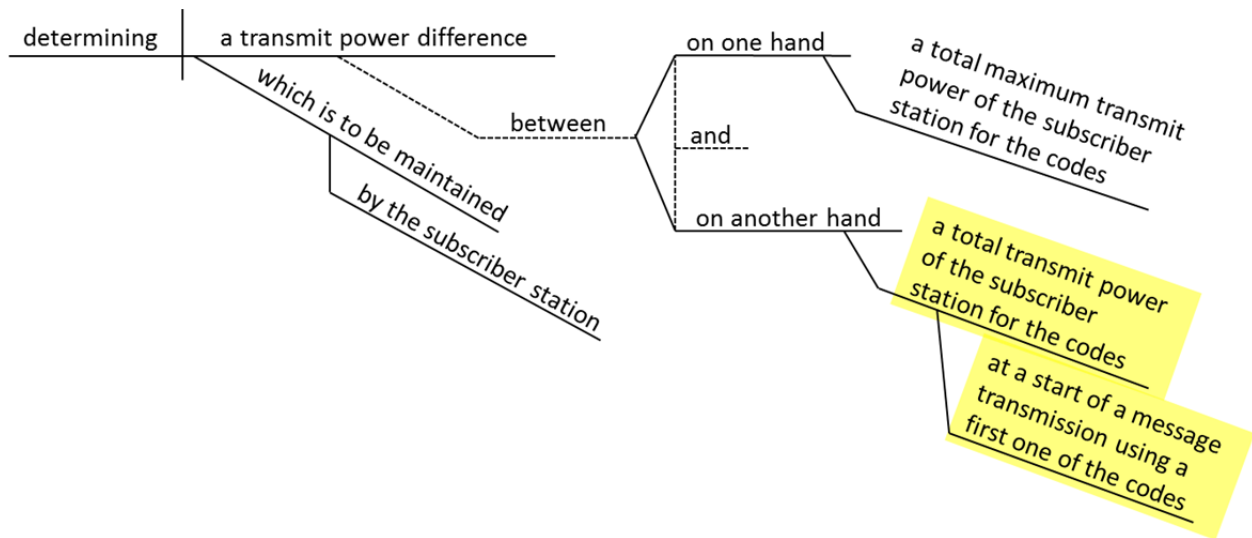


Figure 1: The “total transmit power” interpretation. (Ex. 1 at ¶ 95.)

In other words, under the first interpretation the claim requires the second variable of the mathematical operation to be the value that is the sum of the subscriber station’s total transmit power “at a start of a message transmission,” as opposed to, *e.g.*, previous values of the subscriber station’s total transmission power.

2. The “maintaining” verb phrase could be limited to “at a start of a message transmission.”

The prepositional phrase “at a start of a message transmission” could instead modify the “maintain[ing a transmit power difference]” verb phrase, “a transmit power difference which is to be maintained by the subscriber station.” This second interpretation is illustrated below.

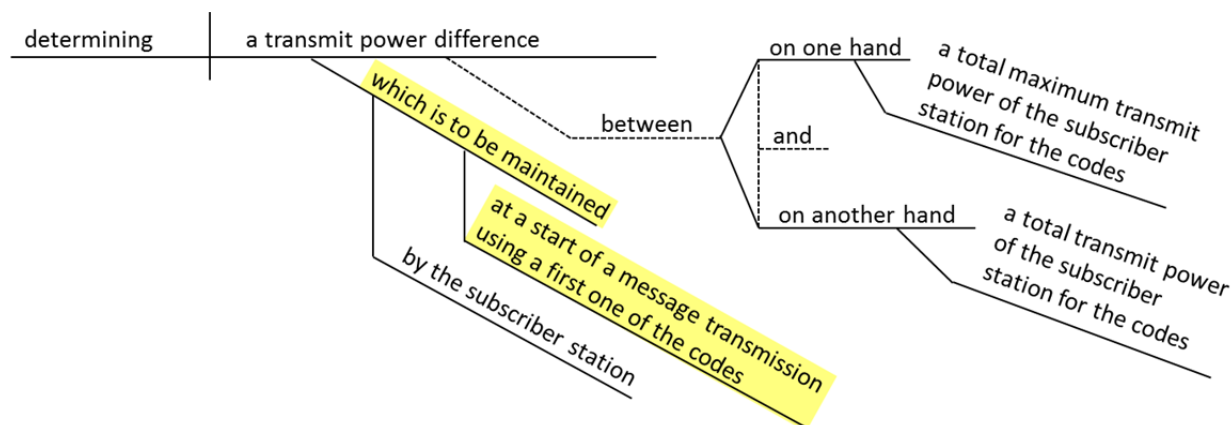


Figure 2: The “maintaining” interpretation. (Ex. 1 at ¶ 94.)

Under this interpretation the claim requires the maintenance of the transmit power difference “at a start of a message transmission,” as opposed to, *e.g.*, maintenance of the transmit power difference after the message transmission commences.

3. The “determining” verb phrase could be limited to “at a start of a message transmission.”

The prepositional phrase “at a start of a message transmission” could modify the “determining a transmit power difference” verb phrase. This third interpretation is illustrated below.

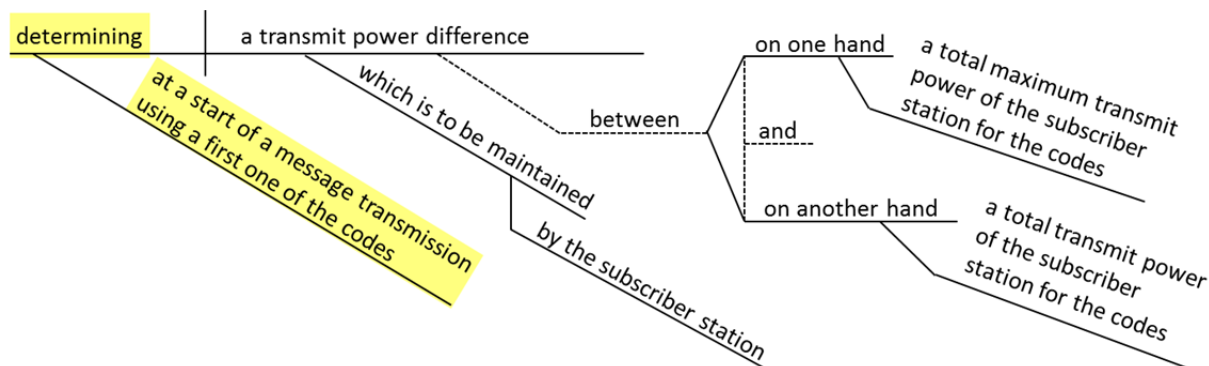


Figure 3 - The “determining” interpretation. (Ex. 1 at ¶ 93.)

In other words, under the third interpretation the claim requires the determination of a transmit power difference “at a start of a message transmission,” as opposed to, *e.g.*, a determination made prior to the message transmission.

4. Claims 1, 9, and 18 do not inform a person of ordinary skill in the art, with reasonable certainty, how to apply the prepositional phrase “at a start of a message transmission using a first one of the codes.”

The specification is consistent with all three possible interpretations. (*See e.g.*, Ex. 4 at Abstract, Claim 9, 2:59–3:4, 3:52–59, 6:11–15, 6:40–49, 7:21–25, 8:50–63; *see also* Ex. 1 at ¶¶ 92–97.) But the scope of the claim differs depending on which of these three interpretations applies. Given the specification’s disclosures and the grammatical ambiguity in the claim, a person of ordinary skill would be unable to determine which possibility is claimed. (*See* Ex. 1 at ¶¶ 93–98.)

Without notice as to the proper application of the “at a start” limitation, one of ordinary skill would not know whether “determining ... at a start of a message transmission” or instead “maintaining ... at a start of a message transmission” is open for use by the public. (*See* Ex. 1 at ¶ 97.) Additionally, one of ordinary skill in the art would not know whether they can determine or maintain a transmission power difference that is the difference between a subscriber station’s “total maximum transmit power” and the subscriber station’s “total transmit power ... for the codes at a start of a message transmission.” (*Id.*) This “zone of uncertainty” thus extends to all of three possible interpretations and this ambiguity in the scope of claims is precisely what § 112, ¶ 2 was intended to prevent.

CCE’s failure to deny or resolve this ambiguity in its response to Defendants’ Letter Brief further supports Defendants’ arguments. (Dkt. No. 283-1, CCE Response Letter Brief at 3.) Instead of providing clarity regarding the ’174 Patent’s disclosure or addressing the substance of Defendants’ arguments, CCE relies exclusively on the fact that some of the Defendants filed an IPR Petition. (*Id.*) However, a particular defendant’s reliance on a plaintiff’s interpretation of a patent (or a more reasonable interpretation) is standard practice. CCE also complains that the indefiniteness issues were not raised in the IPR Petition. (*Id.*) As is known, however, the issue of indefiniteness **cannot** be raised in an IPR Petition. *See* 35 U.S.C. § 311(b). If the patentee cannot articulate the proper interpretation, how can the public avoid the “zone of uncertainty”?

Claim 1 is thus invalid as indefinite. Claims 9 and 18 recite substantially similar language and are therefore invalid for the same reasons.

D. The '820 Patent: Claims 1, 12, and 24 are indefinite because they do not inform persons of ordinary skill, with reasonable certainty, how to reconcile inconsistent and directly conflicting claim requirements.

As discussed above, *Nautilus* clarified the proper definiteness standard concerning the precision with which a claim must be drafted. *Nautilus*, 134 S. Ct. at 2129. When terms are “internally inconsistent” because of conflicting limitations, a person of ordinary skill in the art would be unable to determine the scope of the claims, rendering such claims indefinite. *Competitive Techs., Inc. v. Fujitsu Ltd.*, 185 F. App'x 958, 966 (Fed. Cir. 2006).

Claims 1, 12, and 24 of the '820 Patent are indefinite under § 112, ¶ 2 because they do not inform a person of ordinary skill in the art, with reasonable certainty, how to reconcile inconsistent conditions the claims impose on the designation of the “buffer status reporting format.” Claim 1 recites two separate conditions that are used to determine which “buffer status reporting format” to designate: (1) a short or long format must be designated “depending on the pre-selected condition detected” and (2) “the long buffer status reporting format” must be designated “when there is sufficient uplink bandwidth to communicate using the long buffer status reporting format.” The specification, however, treats separately the check based on the pre-selected condition and the check based on sufficient uplink bandwidth, discussing them in separate embodiments. For example, the “pre-selected condition” may be the amount of data in a buffer, which is a wholly different inquiry than the amount of “uplink bandwidth.” (*See, e.g.*, Ex. 5 at 6:6–9, 7:60–66.)

Claim 1 fails to resolve instances where these two recited conditions necessarily result in conflicting designations. For example, in certain circumstances, the “pre-selected condition” may require designating the short reporting format. At the same time, however, the “sufficient uplink bandwidth” condition may require designating the long reporting format. In this scenario, the language of Claim 1 provides no way to reconcile these inconsistent and directly conflicting requirements. (*See* Ex. 1 at ¶¶ 110–15.) CCE's cites to the specification do not resolve the ambiguity. (*See* Ex. 5 at 10:29–44; Dkt. No. 283, Ex. A at 5.) CCE cites to certain embodiments

that consider whether more than one RBG has buffered data or exceeds a certain threshold in relation to the amount of available bandwidth; that is, where *both* conditions require the short format. Whether there is a situation that does not present the conflict, however, does not mean that there are no situations that do present the conflict. The specification is silent regarding how to handle a situation that presents the conflict, for example, where only one RBG has buffered data to send (requiring the short format per the first condition) yet there is sufficient uplink bandwidth to permit a long format communication.

Thus, Claim 1 fails to inform with reasonable certainty persons of ordinary skill in the art about the scope of the invention. Claims 12 and 24 recite identical conditions that result in the same inconsistent designations, and for the same reasons, also fail to inform with reasonable certainty persons of ordinary skill in the art about the scope of the invention. (*See* Ex. 5 at 11:62–12:6, 13:6–14:8.) These claims are therefore indefinite and invalid.

E. The '820 Patent: Claim 12 is indefinite because the “designating unit” is a means-plus-function element that lacks sufficient structure that 35 U.S.C. § 112, ¶ 6 requires.

The term “the designating unit” and the claimed function that follows make it subject to the requirements of 35 U.S.C. § 112, ¶ 6. This is because it recites a function without providing sufficient structure for performing that function. The term “designating unit” consists of a nonce word (“unit”) with an adjectival modifier (“designating”) and thus cannot connote sufficient structure. To address this deficiency, CCE asks the Court to remove “the designating unit” term from Claim 12 altogether via an unwarranted “correction” that CCE characterizes as the “correct construction.” Because both the claim and the specification raise a reasonable debate as to the proper correction to be made, however, it would be improper for the Court to correct Claim 12.

a. The Term “Designating Unit” Is Subject To § 112, ¶ 6.

The term “designating unit” in Claim 12 is subject to means-plus-function treatment under 35 U.S.C. § 112, ¶ 6. While claim elements that do not contain the term “means” are presumed not to be in means-plus-function form, this presumption can be rebutted if the claim term “recites function without reciting sufficient structure for performing that function.” *Mass. Inst. of Tech. v.*

Abacus Software, 462 F.3d 1344, 1353 (Fed. Cir. 2006). In particular, “nonce word[s]”—that is, “verbal construct[s] that [are] not recognized as the name of structure and [are] simply a substitute for the term ‘means for’”—cannot provide the legally-required structure. *Id.* at 1354.

Claim 12 is subject to means-plus-function treatment because it recites a function without providing sufficient structure for performing that function. Claim 12 merely recites the words “designating unit” followed by the function it is to perform: “designate the long buffer status reporting format when there is sufficient uplink bandwidth to communicate using the long buffer status reporting format.” Nothing in Claim 12, however, recites sufficient structure to perform this recited function.

The term “unit” is a generic “nonce” word that can refer to almost any conceivable element in a communications system, “is not recognized as the name of structure,” and thus provides no information as to what structure or class of structures is contemplated. The specification emphasizes that the claimed “units,” such as the “designating unit,” are functional: “[m]any of the *functional units* described in this specification have been labeled as units, in order to more particularly emphasize their *implementation independence*.” (Ex. 5 at 7:13–26 (emphasis added).) The Federal Circuit has previously identified similar “generic structural terms” such as “mechanism,” “means,” “element,” and “device” as terms that do not connote sufficient structure and are subject to means-plus-function treatment. *Mass.*, 462 F.3d at 1354–56. The Manual of Patent Examination Procedure includes “unit for” in a listing of “nonce” terms that may invoke § 112, ¶ 6. M.P.E.P. § 2181

The fact that Claim 12 modifies its generic “unit” with the word “designating” does not change this result. Adjectival modifiers that do not have a well-understood structural meaning in the art, or are not provided one by the specification, are insufficient to remove a claim element from means-plus-function treatment. *See Mass.*, 462 F.3d at 1343; *see also Mas-Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206, 1214 (Fed. Cir. 1998). Here, the specification does not associate a structure with the term “designating unit.” This term is not commonly used in the communications field and has no generally known or accepted structural meaning. (Ex. 1 at ¶¶ 118–20.) These

words amount to nothing more than an undefined module, that is, a “unit,” that performs some sort of “designating” function. Thus, the term “designating unit” is subject to § 112, ¶ 6.

Besides relying on the presumption rebutted above, CCE argues that § 112, ¶ 6 does not apply to “the designating unit” because there is no evidence that the patentee intended to draft Claim 12 using functional language. CCE’s only support for its position is to analogize to Claim 23, which uses means-plus-function language, and to argue that the patentee “knew how to invoke § 112(6) when they intended to do so.”² (Dkt. No. 277 at 26.) However, “claim drafters can also use different terms to define the exact same subject matter.” *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380-81 (Fed. Cir. 2006). The specification, as discussed above, shows that the patentee intended “designating unit” to be functional and implementation independent, just like the term “means.” (See Ex. 5 at 7:13–26.) Both the patentee and the Examiner operated with this understanding during prosecution.

While rejecting Claim 24 (Prosecution Claim 27), the Examiner drew a parallel between the functional “means” and “units” language, stating: “[a]pplicant’s specification has described the functions of each of the ‘means’ for performing the specified functions as being performed by ‘units.’” (Ex. 7, Feb. 2, 2011 Final Rejection at 3.) The Examiner also rejected both Claim 12 and Claim 24 for “being directed towards software per se.” (Ex. 8, Sept. 30, 2010 Rejection at 3–4.) The patentee did not contest the Examiner’s understanding of “unit” but instead narrowed the claim by replacing “units” with structure, except for the “designating unit.” (See Ex. 9 at 5–6.)

b. The ’820 Patent Specification Fails To Clearly Link Sufficient Structure To The “Designating Unit” Function.

Driven by its concern that § 112, ¶ 6 does apply, CCE argues that there is structure corresponding to the “designating unit.” Contrary to CCE’s assertion, the specification fails to clearly link or associate any structure or class of structures with the “designating unit” or its function: “designat[ing] the long buffer status reporting format when there is sufficient uplink

² To support its position, CCE also references to Defendants’ 4-2 Statement. (Dkt. No. 277 at 27.) This reference is improper and should not be relied upon by the Court. See P.R. 2-4.

bandwidth to communicate using the long buffer status reporting format.” Almost all the references to the term “designating unit” in the specification are explicitly functional: they describe the “designating unit” in terms of what it does, is “configured to” do, or “cooperates” or “collaborates with” other units to do. (*See, e.g.*, Ex. 5 at 1:60–62, 1:64–2:2, 2:20–22, 6:21–35.) The remaining references simply refer to element 260 of Figure 2, which is a generic, unadorned, square box that provides no structural information whatsoever.

The only physical structures that CCE identifies in connection with this term are (1) a VLSI circuit, (2) a semiconductor, and (3) a processor. (Dkt. No. 277 at 27.) But these generic structures may be used to implement *any* of the many “functional units” described in the patent. (Ex. 5 at 7:13–36.) None of these structures by themselves is sufficient structure to perform the claimed function here. (Ex. 1 at ¶¶ 124, 127.) To be sufficient, these general structures would have to be transformed into a specific-purpose devices that can carry out the claimed function. *See Aristocrat*, 521 F.3d 1328, 1331–32 (Fed. Cir. 2008).

CCE acknowledges that an algorithm is required in order for there to be sufficient structure for this function. (Dkt. No. 277 at 27.) To meet that requirement, however, CCE merely points to Figures 2–4 (and the accompanying description) as disclosing that algorithm. (*Id.*) These figures and their accompanying descriptions fail to provide any structural details for the designating unit or any specific algorithm for performing its claimed function. (Ex. 1 at ¶¶ 128–33.) Although CCE also highlights and quotes one other particular portion of the specification (Ex. 5 at 6:10–36), again that section fails to describe any algorithm that performs the claimed “designating” function. (Dkt. No. 277 at 27; Ex. 1 at ¶ 123.) CCE has failed to establish that the specification discloses sufficient structure for “the designating unit’s” function. Claim 12 is indefinite and thus invalid.

VI. CONCLUSION

Claims 11 and 13 of the ’9923 Patent, Claims 11–13 of the ’019 Patent, Claims 1, 6, 9, 14, 18, and 19 of the ’174 Patent, and Claims 1, 4, 6–12, 15, 17–22, and 24 of the ’820 Patent are invalid as indefinite under 35 U.S.C. § 112, ¶¶ 2 and/or 6. The Court should find so as a matter of law and grant summary judgment in favor of Defendants.

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Respectfully submitted,

/s/ Christopher W. Kennerly

Christopher W. Kennerly
TX Bar No. 00795077
Jeffrey G. Randall
CA Bar No. 130811
PAUL HASTINGS LLP
1117 S. California Ave.
Palo Alto, CA 94304-1106
Telephone: (650) 320-1800
Facsimile: (650) 320-1900
chriskennerly@paulhastings.com
jeffrandall@paulhastings.com

**ATTORNEYS FOR DEFENDANT AT&T
MOBILITY LLC**

/s/ Jamie B. Beaber

Jamie B. Beaber (D.C. Bar No. 484186)
Kfir B. Levy (D.C. Bar No. 989212)
Michael W. Maas (D.C. Bar No. 493685)
MAYER BROWN LLP
1999 K Street, N.W.
Washington, DC 20006-1101
Telephone: (202) 263-3000
Facsimile: (202) 263-3300
jbeaber@mayerbrown.com
klevy@mayerbrown.com
mmaas@mayerbrown.com

Robert G. Pluta (IL Bar No. 6278255)
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: (312) 782-0600
Facsimile: (312) 701-7711
rpluta@mayerbrown.com

Michael E. Jones
State Bar No. 10929400
Allen F. Gardner
State Bar No. 24043679
POTTER MINTON P.C.
110 N. College Avenue, Suite 500

/s/ Melissa R. Smith

Melissa R. Smith
State Bar No. 24001351
GILLAM & SMITH, LLP
303 S. Washington Ave.
Marshall, TX 75670
Telephone: (903) 934-8450
Facsimile: (903) 934-9257
melissa@gillamsmithlaw.com

John C. Hueston (*Pro Hac Vice*)
Douglas J. Dixon (*Pro Hac Vice*)
IRELL & MANELLA LLP
840 Newport Center Dr., Ste. 840
Newport Beach, CA 92660
Telephone: (949) 760-0991
Facsimile: (949) 760-5200
JHueston@irell.com
DDixon@irell.com

Ellisen S. Turner (*Pro Hac Vice*)
Benjamin Haber (*Pro Hac Vice*)
IRELL & MANELLA LLP
1800 Avenue of the Stars, Ste. 900
Los Angeles, CA 90067
Telephone: (310) 277-1010
Facsimile: (310) 203-7199

Tyler, Texas 75702
Telephone: (903) 597-8311
Facsimile: (903) 593-0846
mikejones@potterminton.com
allengardner@potterminton.com

**ATTORNEYS FOR DEFENDANTS LG
ELECTRONICS, INC. AND LG
ELECTRONICS U.S.A., INC.**

/s/ Alan A. Wright
Alan A. Wright
Oluwaseun O. Ajayi
Brendan P. O'Shea
H.C. PARK & ASSOCIATES, PLC
1894 Preston White Drive
Reston, VA 20191
Telephone: (703) 288-5105
Facsimile: (703) 288-5139
awright@park-law.com
oajayi@park-law.com
boshea@park-law.com

Melissa R. Smith
State Bar No. 24001351
GILLAM & SMITH, LLP
303 S. Washington Ave.
Marshall, TX 75670
Telephone: (903) 934-8450
Facsimile: (903) 934-9257
melissa@gillamsmithlaw.com

**ATTORNEYS FOR DEFENDANTS
PANTECH CO. LTD. AND PANTECH
WIRELESS, INC.**

ETurner@irell.com
BHaber@irell.com

**ATTORNEYS FOR DEFENDANTS
T-MOBILE USA, INC. AND T-MOBILE US,
INC.**

/s/ Jennifer H. Doan
Jennifer H. Doan
Texas Bar No. 08809050
Joshua R. Thane
Texas Bar No. 24060713
HALTOM & DOAN
Crown Executive Center, Suite 100
6500 Summerhill Road
Texarkana, TX 75503
Telephone: (903) 255-1000
Facsimile: (903) 255-0800
jdoan@haltomdoan.com
jthane@haltomdoan.com

J. David Hadden
CA Bar No. 176148 (Admitted E.D. Tex)
dhadden@fenwick.com
Saina Shamilov
CA Bar No. 215636 (Admitted E.D. Tex)
sshamilov@fenwick.com
Ravi R. Ranganath
CA Bar No. 272981 (Admitted E.D. Tex)
rranganath@fenwick.com
FENWICK & WEST LLP
Silicon Valley Center
801 California Street
Mountain View, California 94041
Telephone: (650) 988-8500
Facsimile: (650) 938-5200

**ATTORNEYS FOR DEFENDANT
AMAZON.COM, INC.**

/s/ Robert W. Weber

Robert W. Weber
Texas State Bar No. 21044800
SMITH WEBER, L.L.P.
5505 Plaza Drive -- P.O. Box 6167
Texarkana, TX 75505-6167
Telephone: 903-223-5656
Facsimile: 903-223-5652
bweber@smithweber.com

Mark McGrory (*Pro Hac Vice*)
ROUSE HENDRICKS GERMAN MAY PC
1201 Walnut, 20th Floor
Kansas City, MO 64106
Telephone: 816-471-7700
Facsimile: 816-471-2221
MarkM@rhgm.com

**ATTORNEYS FOR DEFENDANTS SPRINT
SOLUTIONS, INC.; SPRINT SPECTRUM
L.P.; and BOOST MOBILE, LLC**

/s/ Roger Joseph Fulghum

Roger Joseph Fulghum
(TX Bar No. 00790724)
Tammy M Pennington Rhodes
(TX Bar No. 24051182)
BAKER BOTTS LLP
910 Louisiana Street
One Shell Plaza
Houston, TX 77002-4995
Telephone: 713/229-1707
Facsimile: 713/229-2707
roger.fulghum@bakerbotts.com
tammy.pennington@bakerbotts.com

Deron R Dacus
(TX Bar No. 00790553)
T Shannon Marie Dacus
(TX Bar No. 00791004)
THE DACUS FIRM, PC
821 ESE Loop 323
Suite 430
Tyler, TX 75701
Telephone: 903/705-1117
Facsimile: 903/7051117

/s/ Inge Larish

Inge Larish
TX State Bar No. 00796924
Steven A. Moore
California State Bar No. 232114
Nicole S. Cunningham
California State Bar No. 234390
PILLSBURY WINTHROP SHAW
PITTMAN LLP
501 West Broadway, Suite 1100
San Diego, CA 92101
Telephone: 619-544-3119
Facsimile: 619-236-1995
inge.larish@pillsburylaw.com
steve.moore@pillsburylaw.com
nicole.cunningham@pillsburylaw.com

**ATTORNEYS FOR DEFENDANTS
HTC CORPORATION, HTC AMERICA,
INC., AND ZTE (USA) INC.**

/s/ Michael E. Jones

Michael E. Jones
State Bar No. 10929400
Patrick C. Clutter, IV
State Bar No. 24036374
POTTER MINTON, P.C.
110 N. College Ave., Suite 500
Tyler, Texas 75702
Telephone: (903) 597-8311
Facsimile: (903) 593-0846
mikejones@potterminton.com
patrickclutter@potterminton.com

Charles B. Molster, III
Virginia State Bar No. 23613
Thomas M. Dunham
D.C. Bar No. 448407
Corrine M. Saylor
D.C. Bar No. 997638 (*Pro Hac Vice*)
WINSTON & STRAWN LLP
1700 K Street, N.W.
Washington, D.C. 20006-3817
Telephone: (202) 282-5000
Facsimile: (202) 282-5100
cmolster@winston.com

ddacus@dacusfirm.com
sdacus@dacusfirm.com

ATTORNEYS FOR DEFENDANT DELL INC.

/s/ Robert J. Benson

Robert J. Benson
CA Bar No. 155971
Christina M. Von der Ahe
CA Bar No. 255467
ORRICK HERRINGTON & SUTCLIFFE - Irvine
2050 Main St
Suite 1100
Irvine, CA 92614-8255
Telephone: 949/852-7705
Facsimile: 949/567-6710
rbenson@orrick.com
cvonderahe@orrick.com

I. Neel Chatterjee
CA Bar No. 173985
ORRICK HERRINGTON & SUTCLIFFE –
Menlo Park
1000 Marsh Road
Menlo Park, CA 94025
Telephone: 650/614-7400
Facsimile: 650/614-7401
nchatterjee@orrick.com

Richard A. Cederoth
Ellen S. Robbins
SIDLEY AUSTIN LLP
One South Dearborn
Chicago, Illinois 60603
Telephone: 312-853-7000
Facsimile: 312-853-7036
rcederoth@sidley.com
erobbins@sidley.com

Jennifer Parker Ainsworth
Texas State Bar No. 00784720
WILSON, ROBERTSON & CORNELIUS, P.C.
909 ESE Loop 323, Suite 400
P.O. Box 7339 [75711]
Tyler, Texas 75701
Telephone: (903) 509-5000

tdunham@winston.com csaylor@winston.com

**ATTORNEYS FOR DEFENDANT
CELLCO PARTNERSHIP D/B/A/
VERIZON WIRELESS**

/s/ Mark C. Scarsi

Mark C. Scarsi (admitted *Pro Hac Vice*)
Miguel Ruiz (admitted *Pro Hac Vice*)
Ashlee N. Lin (admitted *Pro Hac Vice*)
Michael Sheen (admitted *Pro Hac Vice*)
MILBANK, TWEED, HADLEY & MCCLOY
LLP
601 South Figueroa Street, 30th Floor
Los Angeles, California 90017-5735
Telephone: (213) 892-4000
Facsimile: (213) 629-5063
mscarsi@mibank.com
mruiz@milbank.com
ashlee.lin@milbank.com
msheen@milbank.com

Thomas C. Mavrakakis (Bar No. 00791209)
Brian C. Kwok (admitted *Pro Hac Vice*)
Christopher R. Lubeck (admitted *Pro Hac Vice*)
MAVRAKAKIS LAW GROUP LLP
735 Emerson Street
Palo Alto, CA 94301
Telephone: (650) 804-7800
Facsimile: (650) 852-9224
mav@mavllp.com
bkwok@mavllp.com
clubeck@mavllp.com

Howard E. Levin (admitted *Pro Hac Vice*)
MAVRAKAKIS LAW GROUP LLP
180 N. LaSalle Street, Suite 2215
Chicago, IL 60601
Telephone: (312) 216-1620
Facsimile: (312) 216-1621
hlevin@mavllp.com

Eric H. Findlay (Bar No. 00789886)
FINDLAY CRAFT PC
102 N. College Avenue, Suite 900
Tyler, TX 75702

Facsimile: (903) 509-5092
jainsworth@wilsonlawfirm.com

**ATTORNEYS FOR DEFENDANT
MICROSOFT**

Telephone: (903) 534-1100
Facsimile: (903) 534-1137
efindlay@findlaycraft.com

ATTORNEYS FOR APPLE INC.

/s/ Rick L. Rambo

Rick L. Rambo
Texas State Bar No. 00791479
Adam A. Allgood
Texas State Bar No. 24059403
1000 Louisiana Street, Suite 4000
Houston, Texas 77002
Telephone: (713) 890-5000
Facsimile: (713) 890-5001
rrambo@morganlewis.com
aallgood@morganlewis.com

**COUNSEL FOR DEFENDANTS NEC
CORPORATION OF AMERICA, NEC
CASIO MOBILE COMMUNICATIONS,
LTD. AND AT&T MOBILITY LLC**

CERTIFICATE OF SERVICE

I hereby certify that on November 14, 2014, I caused the foregoing to be electronically filed with the Clerk of Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Christopher W. Kennerly
Christopher W. Kennerly